



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,330	04/09/2001	Burkhard Becker	GR 00 P 1696	7120
24131 7590 12/23/2004				INER
LERNER AND GREENBERG, PA P O BOX 2480			PEYTON, TAMMARA R	
HOLLYWOOD, FL 33022-2480			ART UNIT	PAPER NUMBER
			2182	

DATE MAILED: 12/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<u></u>					
	Application No.	Applicant(s)			
	09/829,330	BECKER ET AL.			
Offic Action Summary	Examiner	Art Unit			
	Tammara R Peyton	2182			
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the c	correspondence address			
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.1: after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be ting within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	nely filed  is will be considered timely.  the mailing date of this communication.  D (35 U.S.C. § 133).			
Status					
1)⊠ Responsive to communication(s) filed on 4/9/0	1.				
	_ action is₊non-final.	·			
Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims					
<ul> <li>4) ☐ Claim(s) 1-11 is/are pending in the application.</li> <li>4a) Of the above claim(s) is/are withdray</li> <li>5) ☐ Claim(s) is/are allowed.</li> <li>6) ☐ Claim(s) 1-5 and 7-11 is/are rejected.</li> <li>7) ☐ Claim(s) 6 is/are objected to.</li> <li>8) ☐ Claim(s) are subject to restriction and/o</li> </ul>	wn from consideration.				
Application Papers					
9) The specification is objected to by the Examine	r.				
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.					
Applicant may not request that any objection to the		` '			
Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Ex	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •			
Priority under 35 U.S.C. § 119		·			
12) Acknowledgment is made of a claim for foreign     a) All b) Some * c) None of:     1. Certified copies of the priority documents     2. Certified copies of the priority documents     3. Copies of the certified copies of the priority application from the International Bureau     * See the attached detailed Office action for a list	s have been received. s have been received in Applicati ity documents have been receive u (PCT Rule 17.2(a)).	on No ed in this National Stage			
Attachment(s)					
1) Notice of References Cited (PTO-892)	4) Interview Summary				
<ul> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)</li> <li>Paper No(s)/Mail Date 8/24/01.</li> </ul>	Paper No(s)/Mail Date of Informal Page   6) Other:	ate Patent Application (PTO-152)			

### **DETAILED ACTION**

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5 and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goff et al., (US 5,845,130).

As per claims 1, 10, and 11, Goff teaches a device for a bidirectional transfer of data, comprising:

a first processor (200/400);

a second processor (208/408):

an input/output memory (memory, 410+Registers, 202) connected to said second processor and said first processor, said input/output memory having a plurality of memory blocks for receiving output or input data from said first processor or said second processor;

an input/output control information memory (Traffic Controller, 204/412) connected to said input/output memory and storing an item of binary control information for each of said memory blocks of said input memory; (col. 3, lines 66- col. 5, lines 14)

Application/Control Number: 09/829,330

Art Unit: 2182

and at least one direct memory access (DMA) channel (Traffic Controller, 204/412) for writing the output data from said first processor to said input/output memory and for reading the input data for said first processor from said input/output memory, said DMA channel connected to said first processor, said input memory and said output memory, access to said input/output memory being regulated such that a write access of said first processor and a read access of said second processor to said input/output memory is permitted on a basis of the item of control information stored in said input/output control information memory, and the write access of said second processor and the read access of said first processor to said input/output memory is permitted on a basis of the item of control information stored in said input/output control information memory.

Goff teaches a shared memory system with a first processor and a second processor wherein a traffic controller holds identifying information for each processor. The traffic controller is checked on behave of the first processor to determine if an identifier corresponding to the second processor is present in the traffic controller. This determines whether the second processor is currently in control of the shared memory. If the second processor is in control of the shared memory then write or read access to the shared memory is denied to the first processor. Further, if identifiers corresponding to the first processor are present in the traffic controller then write or read access is denied to the second processor. (Abstract, col. 4,lines 54-col. 7, lines 1-10) However, Goff is silent in respect to a DMA channel, nonetheless, one of ordinary skill would

Art Unit: 2182

readily recognize that Goff teaches a method of direct access of specific memory blocks. Goff does not need to expressly use the term polling in the disclosure since one skilled in the art is presumed to know something about the art apart from what the references literally disclose. (see *In re Jacoby*, 309 F.2d 513, 135 USPQ 317 (CCPA 1962)).

As per claims 2 and 3, Goff teaches wherein a write access operation of said first processor to a memory block of said input/output memory is permitted only if the item of binary control information for the memory block is in a first state and wherein a read access operation of said second processor to the memory block of said input/output memory is permitted only if the item of binary control information for the memory block is in a second state.

As per claims 4 and 5, Goff teaches wherein a read access operation of said first processor to a memory block of said input/output memory is permitted only if the item of binary control information for the memory block is in a first state and wherein a write access operation of said second processor to a memory block of said input/output memory is permitted only if the item of binary control information for the memory block is in a second state.

Art Unit: 2182

As per claim 7, the uses of cyclic memories are well known in the art thereby making use of this type of memory obvious to one of ordinary skill.

As per claims 8 and 9, Goff does not expressly teach wherein said first processor is a digital signal processor, and said second processor hardware logic circuit, however, it would have been obvious to one of ordinary skill that Goff would have been motivated to implement a host of other processors because doing so would expand the flexibility of Goff's system.

### Allowable Subject Matter

Claim 6 is objected to as being dependent upon a rejected base claim.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammara Peyton whose telephone number is (571) 272-4157. The examiner can normally be reached between 6:30 - 4:00 from Monday to Thursday, (I am off every first Friday), and 6:30-3:00 every second Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin, can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3718. Any inquiry of a general nature of relating to the status of this application

Art Unit: 2182

should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Mailed responses to this action should be sent to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231.

Faxes for Official/formal (After Final) communications or for informal or draft communications (please label "PROPOSED" or "DRAFT") sent to:

(703) 872-9306

Hand-delivered responses should be brought to:

USTPO, 2011 South Clark Place, Customer Window

Crystal Plaza Two, Lobby Room 1B03, Arlington, VA, 22202

Crystal Park II, 2121.

Tammara Peyton

December 10, 2004